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January 29, 2007

James Colter, P.E.
Remedial Project Manager (Code OPNEEV)
Facilities Engineering Command, Mid-Atlantic
Naval Facilities Engineering Command
9742 Maryland Avenue
Norfolk, VA 23511-3095

3683

Re: Work Plan for Non-Time Critical Removal Action at the Old Fire Fighting Training Area

Dear Mr. Colter:

EPA reviewed the *Work Plan for Non-Time Critical Removal Action* at the Old Fire Fighting Training Area, Newport, RI, dated January 2007. Detailed comments are provided in Attachment A.

EPA will coordinate with RIDEM and will provide additional locations for test pits to further evaluate areas of concern and better evaluate the effectiveness of the removal action. Some of these areas would be dependent on information obtained during the removal action and would be presented at an appropriate time during the removal action.

Please provide a copy of the Coastal Zone Consistency Determination in the Final Work Plan, or as a work plan addendum if necessary.

I look forward to working with you and the Rhode Island Department of Environmental Management toward the cleanup of the Old Fire Fighting Training Area. Please do not hesitate to contact me at (617) 918-1385 should you have any questions.

Sincerely,

Kymberlee Keckler, Remedial Project Manager
Federal Facilities Superfund Section

Attachment

cc: Paul Kulpa, RIDEM, Providence, RI
Cornelia Mueller, NETC, Newport, RI
Jennifer Stump, Gannet Fleming, Harrisburg, PA
Steven Parker, Tetra Tech-NUS, Wilmington, MA

ATTACHMENT A

<u>Page</u>	<u>Comment</u>
p. 2-2, §2.3	The proposed schedule for the design of the stone revetment in this section differs substantially from the schedule as stated in the responses to EPA comments on the Action Memorandum. Please explain.
p. 4-1, §4.0:	Please add Rhode Island and federal solid waste regulations.
p. 5-1, §5.0	<p>The scope of work as identified in the bullets on this page falls short of what will be required to approve a no further action for this site. Any and all piping found must be tracked to an end point because the piping may lead to other structures or to a discharge point with contamination. Furthermore, lack of evidence of contamination in the piping at the known structure does not mean there wouldn't be contamination elsewhere in the piping, especially for piping existing at a structure, which may have sloped away from the structure and still contain contamination at the lower gradient point. In addition, a break in the piping does not necessarily signal an end of the piping or the absence of a structure or discharge area along the route of the piping. Please edit the scope of the work plan scope to address these concerns.</p> <p>The excavation volumes presented in this section, while consistent with the calculations in Appendix D, are not consistent with the removal action procedures described in the work plan. Except for the calculations in Appendix D, the remainder of this work plan indicates that all excavated materials will be sorted, stockpiled, characterized and sent off site for disposal. The Appendix D calculations indicate that 80% of the excavated soil is expected to be placed back into the excavation. Please correct Appendix D (it is noted that these calculations were made in July 2006, while this work plan is dated January 2007).</p> <p>Please edit the text to specify a minimum separation between areas being backfilled and areas undergoing excavation to minimize the possibility of cross contamination.</p> <p>The work plan does not discuss the replacement or potential replacement of active storm drainage piping. If that is potentially a part of this removal action, please augment the work plan to address the plan and schedule for replacing the storm drainage.</p>
p. 5-2, §5.0	The first bullet on this page refers to extensive sampling conducted to estimate the area of the TPH hot spot; however, review of Figure 1-1 indicates no sample locations in the vicinity of the hot spot that would be useful in defining the horizontal limits of the hot spot. Please revise the

language to indicate that insufficient sampling has been conducted to define the limits of the hot spot so the Navy plans to initially excavate an area approximately 2,200 feet square in the vicinity of the hot spot and will expand the excavation as necessary based on the results of confirmation sampling.

The second bullet on this page discusses the size and volume of the ten supplemental test pits; however, the size and volumes presented are not consistent. Furthermore, RIDEM and EPA may want test pits with dimensions that differ from those presented in this bullet and will not be restricted to any particular configuration. A volume limitation for each test pit of 85 cubic yards is reasonable, but not a dimensional restriction.

Regarding the volume to be excavated at each structure and the total excavation volume presented in the third bullet on this page, none of the volumes correspond with the excavation dimensions, possibly because the Navy has assumed void space in some of the structures, but that is not clear from the text. Also, the sum of the volumes for each structure does not total anywhere near the 17,000 cubic yards discussed in the third bullet on this page. Please clarify how this total volume calculation was made. The text in the un-bulleted paragraph in the middle of the page suggests that a truckload of soil will only be 3 cubic yards, which may be correct if pickup trucks will be used. If that is not the intention, please review and correct the reference to 3 cubic yard truckload volumes.

Regarding the FID screening discussed in the bullets at the bottom of this page, please edit the work plan to confirm that these readings are based on headspace analyses in jars, which EPA considers necessary. Temperature will have a significant effect on the FID readings and readings collected in late fall and winter especially would be impacted by temperature.

- p. 6-1, §6.0 Please clarify in the work plan how the prior sample locations and grid nodes will be accurately located and marked in the field. What type of survey data is available for existing locations? A better description of the pre-removal survey scope is warranted.
- p. 7-1, §7.2.1 Please augment the discussion in this section to indicate that erosion and sediment controls will be inspected daily and after each significant precipitation event (greater than 0.25 inches in less than a 12 hour period) or (not and) after an event that has the potential to damage the erosion and sediment controls.
- p. 7-2, §7.2.5 Please augment the work plan to describe the route the loaded trucks will take upon leaving the site and upon leaving the island and identify any access issues.

p. 7-3, §7.3 The proposed location of the temporary staging area needs to be reconsidered because it is located over an area where burning chambers may be located based on historical drawings. EPA is considering that location for additional exploratory test pits. The temporary storage area as well as the support trailer should be located where no historical subsurface structures were located. The most appropriate location for these areas as well as for the access road to pick up waste would be on the western side of the site in an area where historical structures were not located. Please revise the work plan accordingly. Alternatively, include in the work plan the contingency for constructing test pits in this area to investigate for potential structures.

p. 7-3, §7.4 Free product was encountered at TP-11 and TP-17 but the work plan does not address the contamination at these two locations. While the Conceptual Site Model from March 17, 2006 postulates that the free product encountered was due only to capillary action, this conclusion cannot be accepted without additional investigation of these two areas to confirm the absence of free product in the surrounding soils. Please edit the scope of the work to address these two potential source areas.

According to Figure 1-5B of the Conceptual Site Model of March 17, 2006, pipes were encountered at TP-2 and TP-12. Based on the relative location of these test pits, it appears that TP-12 may have located a pipe between two oil tanks and that TP-2 may have encountered the main 6-inch pipe that drained the entire system. Since potentially contaminated structures were encountered at these two locations, they need to be added to the scope of the removal action. Please edit the work plan to include excavation and exploration of these locations.

There is not enough discussion related to the removal of the exposed storm water drainage pipes. Will the Navy investigate the extent of the pipes to verify whether they are currently active drains? Inactive drainage piping and pipe beds could serve as a reservoir or a conduit for contamination.

The concrete drainage structure along the shore in the center of the site appears to directly intersect the TPH hot spot which is landward of the exposed drainage structure. Consequently this drainage pipe or the bedding may serve as a conduit bringing contamination from an upgradient source area to the hot spot or as a conduit to the bay. This will need to be evaluated during the removal action or addressed during subsequent remedial actions.

p. 7-4, §7.4 The second sentence on this page states that sorted material will be transported to the staging area using a front-end loader. Section 5.0 on page 5-2 and Section 7.6 on page 7-6 both state that grab samples will be collected from each truckload of excavated soil to determine the

appropriate staging area sub-section. Please edit the work plan for consistency to clarify the process that will be used to sort and transport excavated material.

The second paragraph states that 250 cubic yards of soil will be removed for the excavation of each drainage pipe; however, Section 5.0 on page 5-1 states that 720 cubic yards of soil will be removed from Drainage Pipe #1. Please correct the discrepancy.

- p. 7-6, §7.6 The first paragraph refers to four stockpiles and the second paragraph refers to five. Section 5.0 described four distinct media. Please correct the discrepancy.

Regarding the staging area discussed in this section and shown in Figure 1-1, it appears that it will only be large enough to hold up to 700 to 800 cubic yards of material, which may not be sufficient for the sorting required unless material is moved quickly off the site. Please review the adequacy of the size of the staging area proposed.

- p. 7-6, §7.7 The discussion in this section states that the excavation areas will be backfilled with imported clean backfill. The implication here and in Section 5.0 is that only imported clean backfill will be used; however, the calculations in Appendix D indicate that the large majority of the excavated soil is expected to be returned to the excavation as fill. EPA would expect that any excavated soil returned to the excavation would first be analyzed to confirm that it is suitable for use as backfill. The work plan needs to be edited to clarify the Navy's intentions.

- p. 7-7, §7.8 The text states that soil that has been excavated and hauled to the temporary staging area will be loaded onto the disposal trucks at the staging area. Section 5.0 states that excavated materials will be transported to the staging area and will be initially sub-divided into four categories pending waste characterization for off-site disposal. These statements imply that all excavated material will ultimately be sent off site for disposal. Please clarify that this is the Navy's intention and correct information in the work plan that contradicts this, such as Appendix D.

- p. 7-7, §7.10 Please edit the text to clarify that silt fence and any remaining accumulated soil/sediment will be removed from all areas, characterized as necessary by the disposal facility, and sent off site for disposal.

Regarding the soil underlying the 40 mil liner, if there is any damage to the liner, the soil beneath the liner must be characterized before being reused at the site. Please edit the work plan accordingly.

Will this removal action include final grading of the site and if so will the grading plan differ from the current site topography? If so, please provide a plan for the final site topography.

- p. 9-1, §9.1 Please clarify the discussion of baseline samples by editing the first sentence to state “Surface soil samples previously collected throughout the site will serve as baseline samples; therefore, no additional baseline sampling will be required prior to commencement of the removal action.”

Regarding the first sentence in the second paragraph it appears that the intent is to collect a second set of samples to demonstrate that areas which did not previously exceed the RIDEM criterion for TPH (based on the baseline sampling) do not exceed the criterion upon completion of the removal action. That is, that the previously “clean” areas have not been contaminated during the removal action. Please edit the work plan to clarify the intent.

Clarification is also required regarding the analytes for the second set of samples. The text refers to comparison to applicable RIDEM criteria which suggests multiple analytes; however, the last sentence in this section refers only to TPH. Please clarify the intent.

- p. 9-1, §9.2 The discussion in the second paragraph suggests that the screening protocol requires headspace jar testing, which EPA considers necessary. Please edit the text to confirm that this is the intention.

- p. 9-2, §9.2 Please edit the text to clarify the intent of the second last sentence in this section by expanding the discussion. It is presumed that the intent is that the excavation will be extended five feet further into the existing sidewall if the contamination in a sidewall sample exceeds the criterion or five feet deeper if a bottom sample exceeds the criterion. Since each sidewall sample location represents a 20 foot length, it is presumed that the additional sidewall excavation would be 20 feet long and extend five feet farther into the sidewall. Practically, the additional excavation would also have to extend along the full depth of the sidewall unless clean sidewall samples exist above and below the sidewall sample that exceeds the criterion. For a bottom sample, the additional area excavated would be that represented by the sample exceeding the criterion, which is 400 square feet.

- p. 9-2, §9.3 In the fourth sentence, please delete the word “volatile” that immediately precedes the phrase semi-volatile organic compounds.

Please edit the description of the composite sampling to indicate that an eight-point composite will be collected based on dividing each stockpile into quadrants and collecting two sub-samples from each quadrant with

the goal of collecting a composite sample that is representative of the entire stockpile. Collect all sub-samples from a minimum of 6-inches beneath the stockpile surface. Sampling frequency shall be as required by the disposal facility but in no case shall one composite sample represent more than 500 cubic yards of waste material.

- p. 10-1, §10.1 The third paragraph in this section discusses a 200-foot buffer area landward for tidal waters within which Coastal Resources Management Council assent is required prior to conducting project activities; however, Figure 1-1 delineates a 100-foot tidal wetland buffer zone, not a 200-foot buffer zone. If these are differing buffer zones, please clarify that in the document and delineate both in Figure 1-1; if they are the same, please correct Figure 1-1.
- p. 10-2, §10.3 The information in this section regarding storm water permitting is not correct, although it is recognized that permits are not generally required for CERCLA projects. The five acre limitation for construction general permits was eliminated in 2003 when the Phase II storm water management program became effective. Rhode Island manages the construction general permit program for Rhode Island, so the substantive requirements of a RIPDES Construction General permit would be applicable because the site is greater than one acre in size, which is the threshold established for the Phase II storm water program. Please correct the text in this section.
- p. 10-3, §10.7 This section states that all excavated materials will be disposed of off site; however, the calculations in Appendix D indicate that most excavated soil is anticipated to be reused as fill. Please correct Appendix D to be consistent with the rest of the work plan.
- p. 10-4, §10.7.2 This section states that recycling of non-metal debris will not be possible because of the potential for hazardous contamination. Please revise the text to clarify what hazardous contamination is of concern because Section 10.8 assumes no hazardous waste will be encountered during this removal action.
- p. 10-5, §10.7.8 This section states that materials may be classified as listed hazardous waste. If there is listed hazardous waste at this site, please edit the work plan to describe how the contractor will be able to identify and segregate the listed hazardous waste.
- p. 10-5, §10.7.11 The third bullet in this section is not consistent with the statement in Section 10.7.2 that the potential presence of hazardous contamination will render non-metal debris unacceptable for recycling. Please review and edit the work plan for consistency

and to eliminate unnecessary designation of materials as hazardous waste.

- p. 10-8, §10.7.19 As of September 2006, the hazardous waste manifest form is a nationally uniform form. Please edit this section to be consistent with the current status of the hazardous waste manifest form.
- p. 10-9, §10.7.21 The Navy is also responsible for sending a generator's copy of the manifest to the receiving state, if not Rhode Island, and if the receiving state requires a generator's copy. Please edit to acknowledge this.
- p. 10-10, §10.8 Will there be a weigh scale on site for weighing each vehicle? Will weight restrictions need to be considered in establishing travel routes for the loaded trucks? Please add to the work plan text as applicable.
- p. 11-1, §11.0 Please also include in the completion report the total volume of waste disposed of off site, the volume of each classification of waste material disposed of off site, the date of the final site walkover and cost for the removal action.
- Figure 1-2 Please add the overlay of the former fire training buildings and geophysics investigation lines to this figure. The Navy agreed to provide such a figure during the TIGER Team meeting and this is documented in the meeting minutes.
- Figure 5-1 The appropriate implementation of this decision tree may lie in how, "Is structure a likely source area?" is decided. Please be aware that oil storage tanks, oil-water separators, burning tanks, and the piping associated with these structures are likely sources of contamination. A representative number of soil samples should be collected from beneath such structures. Pipes should be made accessible, and tracked to an end point such as another tank or a discharge point. Breaks in piping must be tracked along a continuation of the route to confirm that all related piping has been found. Pipes may have trapped product or contaminated soil within them so the contents of the pipes needs to be examined to demonstrate the lack of contamination. This will require collecting multiple samples from pipe runs. Also, the soil at the discharge point for each pipe needs to be sampled to a representative depth to confirm that no contamination above the cleanup goal remains.

It cannot be assumed that the infrastructure at this site was emptied of all product, cleaned, and properly decommissioned based on today's standards. Please supplement this figure with a text

description of the details of the protocol that will be used to implement the decisions and actions identified in the figure.

Appendix C

The two figures in this appendix are identified as D-1 and D-2, although this is Appendix C. Is that what was intended? Also, Figure D-1 refers to the Former Building 32 Site which is not related to this site. Finally, why are the well details different for D-1 and D-2? Please confirm that the information in these figures is relevant to this site.

Appendix D

The calculations assume that most of the soil excavated will be reused as backfill; however, this contradicts the discussion in the text at several locations which state that all excavated material will be shipped off site for disposal. Please correct the disposal volume calculations, the backfill requirements, and the project costs to reflect the off-site disposal of all excavated material.

It is presumed that the affected length and width should be the surface dimensions, not the bottom of excavation dimensions, but Navy should confirm this. The calculations are not consistent in this regard. For the soil excavation area and the manhole excavation the bottom dimensions were used for the affected area; however, for the test pit calculations the surface dimensions were used for the affected area. The dimensions used for the drain pipe excavation don't match with either surface or bottom dimensions. Please correct the errors and apparent inconsistency.

The calculation for the drain pipe mistakenly used a 50 foot bottom width rather than the correct 10 foot bottom width. Please correct the calculation.